

/\* objective function \*/

min: 750 Y1 + 900 Y2 + 450 Y3 + 13000 Y4 + 12000 Y5 + 5000 Y6 + 900 Y7 + 1200 Y8 + 750 Y9;

/\* Constraints \*/

/\* Plant 1 \*/

L1: Y1 + 20 Y4 + Y7 + 900 Y10 + 450 Y11 >= 420;

M1: Y1 + 15 Y4 + Y8 + 900 Y10 + 450 Y11 >= 360;

S1: Y1 + 12 Y4 + Y9 + 900 Y10 + 450 Y11 >= 300;

/\* Plant 2 \*/

L2: Y2 + 20 Y5 + Y7 - 750 Y10 >= 420;

M2: Y2 + 15 Y5 + Y8 - 750 Y10 >= 360;

S2: Y2 + 12 Y5 + Y9 - 750 Y10 >= 300;

/\* Plant 3 \*/

L3: Y3 + 20 Y6 + Y7 - 750 Y11 >= 420;

M3: Y3 + 15 Y6 + Y8 - 750 Y11 >= 360;

S3: Y3 + 12 Y6 + Y9 - 750 Y11 >= 300;

/\* Variable Bounds \*/

Y10 >= -INF;

Y11 >= -INF;